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JNANA BHARATHI
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BUB/CTE/2015-16/

1. TESTING OF FINE AGGREGATES : **Date: 18-07-2015**

Sub: Testing of Fine Aggregates.
{Project*: Construction of CC Culverts, CC Drain Providing Covering Slabs and Kerb Stones at M.S.Palya Main Roads LHS in Ward No.11}

Ref. : Letter No. Testing/BUB/2015-16, dated 13-07-2015

Sample supplied to lab by: Sri.Thirunagendra, Contractor, Bangalore.

Report required for: Assistant Executive Engineer, Vidyaranyapura Sub-Division, BBMP, Bangalore

TABLE - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	**Percentage Passing**	Specification as Per IS: 383-1970(Reaffirmed 2002) **Percentage Passing**			Remarks
		Zone-I	**Zone-II**	**Zone -III**	
04.75	98.00	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	84.20	60-95	75-100	85-100	
01.18	73.60	30-70	55-90	75-100	
600. mic	47.00	15-34	35-59	60-79	
300.mic	19.00	5-20	8-30	12-40	
150.mic	2.90	0-10	0-10	0-10	

TABLE 1.2 ;

Sl No	Test Conducted	Sample	Results	Requirements as Per IS. Specification IS :383-1970 (Reaffirmed 2002)
1	Silt Content	001	1.44%	Not more than 8%
2.	Specific Gravity	----	2.59	-------

*As Furnished by Client.
The Results relate only to the items tested.

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BUB/CTE/2015-16/

1. TESTING OF COARSE AGGREGATES (40 mm): **Date: 18-07-2015**

Sub: Testing of Coarse Aggregates.
{Project*: Construction of CC Culverts, CC Drain Providing Covering Slabs and Kerb Stones at M.S.Palya Main Roads LHS in Ward No.11}

Ref. : Letter No. Testing/BUB/2015-16, dated 13-07-2015

Sample supplied to lab by: Sri.Thirunagendra, Contractor, Bangalore.

Report required for: Assistant Executive Engineer, Vidyaranyapura Sub-Division, BBMP, Bangalore

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
	40 mm Sample	*Single size*	*Graded*
40mm	98.00	85-100	95 – 100
20mm	68.10	0 -20	30- 70
10mm	28.00	0 -5	10- 35
4.75mm	Nil	------	0 - 5

TABLE 1 2 :

SL No	Test conducted	Sample No	Results	Requirements as per IS:383-1970 & Test Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2002)
1.	Flakiness Index	As above	15.20%	Not to exceed 25 %
2.	Crushing value	----,,----	26.10%	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

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BUB/CTE/2015-16/ **Date: 18-07-2015**

1. TEST REPORT ON REINFORCEMENT STEEL:

Sub: Testing of Reinforcement Steel of diameter 10mm.
{Project*: Construction of CC Culverts, CC Drain Providing Covering Slabs and Kerb Stones at M.S.Palya Main Roads LHS in Ward No.11}

Ref. : Letter No. Testing/BUB/2015-16, dated 13-07-2015

Sample supplied to lab by: Sri.Thirunagendra, Contractor, Bangalore.

Report required for: Assistant Executive Engineer, Vidyaranyapura Sub-Division, BBMP, Bangalore

TABLE – 1

SL No	Details	For 10mm	
		Test Results	Min Req. as per IS 1786-2008
01	Observed diameter of bar	**10.0mm**	10.0mm
02	Observed Wt/m Length **Kg/m**	**0.620**	0.567
03	Proof stress/Yield stress, fy , **N/mm^2**	**554.0**	500.0
04	Bend/ Re bend Test	**Ok**	---
05	Percentage of Elongation, %	**19.30**	12.00
06	Ultimate Tensile Strength **N/mm^2**	**626.0**	545.0

*As furnished by Client.
The Results relate only to the items tested.

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18-07-2015
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JNANA BHARATHI
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BUB/CTE/2015-16

Date: 22-07-2015

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Construction of CC Culverts, CC Drain Providing Covering Slabs and Kerb Stones at M.S.Palya Main Roads LHS in Ward No.11}

Ref. : Letter No. Testing/BUB/2015-16, dated 13-07-2015

Sample supplied to lab by: Sri.Thirunagendra, Contractor, Bangalore.

Report required for: Assistant Executive Engineer, Vidyaranyapura Sub-Division, BBMP, Bangalore

PHYSICAL TESTS ON CEMENT

Brand* : Birla
Grade * : 53
Type * : OPC
Date : 14-07-2015 to 21-07-2015

SL No	Name of Test	Results	Requirements as per IS 12269-1987
		Cement Sample	
1	Initial setting time	**145min**	Shall not be less than 30 min
2	Final setting time	**240 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**2.40%**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**1.80 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results) b) 7 days (average of three results)	**29.00 N/ Sq mm** **40.80 N/Sq mm**	Shall not be less than 27 N/Sqmm Shall not be less than 37N/Sqmm

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The Results relate only to the items tested.

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BUB/CTE/2015-16/

DATE: 29-08-2015

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (28 days Compressive Strength)
{Project*: Construction of CC Culverts, CC Drain Providing Covering Slabs and Kerb Stones at M.S.Palya Main Roads LHS in Ward No.11}

Ref. : Letter No. Testing/BUB/2015-16, dated 28-08-2015

Sample supplied to lab by: Sri.Thirunagendra, Contractor, Bangalore.

Report required for: Assistant Executive Engineer, Vidyaranyapura Sub-Division, BBMP, Bangalore

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1 :

Sl No	Location/ Identification *	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	31-07-15	28-08-15	28	22500	495	22.00	**22.22**
	002	"	"	"	"	510	22.66	
	003	"	"	"	"	495	22.00	

*As Furnished by Client.
The Results relate only to the items tested.

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29/08/2015

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BUB/CTE/2015-16/

DATE: 26-08-2015

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (28 days Compressive Strength)
{Project*: Construction of CC Culverts, CC Drain Providing Covering Slabs and Kerb Stones at M.S.Palya Main Roads LHS in Ward No.11}

Ref. : Letter No. Testing/BUB/2015-16, dated 25-08-2015
Sample supplied to lab by: Sri.Thirunagendra, Contractor, Bangalore.
Report required for: Assistant Executive Engineer, Vidyaranyapura Sub-Division, BBMP, Bangalore

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{15}

TABLE 1.1 :

Sl No	Location/ Identification *	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	28-07-15	25-08-15	29	22500	400	17.77	**17.55**
	002	"	"	"	"	385	17.11	
	003	"	"	"	"	400	17.77	

*As Furnished by Client.
The Results relate only to the items tested.

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